# SECTION J.3 SAFETY AND QUALITY ASSURANCE DOCUMENTATION

#### **SECTION J.3.1**

## **SAFETY AT THE FEMP**

# J.3.1 Safety at the FEMP

The FEMP is defined by the DOE as a Nonreactor Nuclear Facility. As such, certain regulations apply to operations within its boundaries or area of responsibility. When performing activities at the FEMP, the Silo 3 Project Contractor shall comply with the safety and health requirements in Sections J.3-1 through J.3-4, unless an exemption is granted by the DOE or FDF. If off-site treatment of Silo 3 material is proposed by the Contractor, the Contractor shall comply with the local, state, and federal regulations governing operation of the Contractor's off-site treatment facility.

#### J.3.1.1 ALARA

All Contractor operations within the boundary of the FEMP shall be performed so as to maintain exposure to radiation ALARA. This principle requires that engineering controls shall be applied first before other controls, such as PPE, are applied. Due to the rigid exposure controls required when dealing with Th-230 (Isotope of Concern, Section J.3.4), the Contractor shall make every effort to design the process to minimize exposure points within the operation. The Contractor shall control loose contamination at the process facility. No Contamination/Airborne Areas shall exist outside the process facility and Contamination/Airborne Areas within the process facility shall be minimized.

The ALARA principle shall be applied to operations and maintenance procedures, as well as to design. Employees shall be trained to limit exposure by maintaining distance from the source and limiting time of exposure and to interpose barriers (e.g., PPE and shielding) between themselves and the source.

Section J.3.4 discusses ALARA and the radiological safety requirements that shall be met by the Contractor in further detail.

# J.3.1.2 Design Reviews

Design Reviews are conducted by FDF to ensure that the Contractor design reflects the principle of ALARA and the use of good engineering practice. The intensity of this review, and the extent to which subsequent formal reviews are required, depends on the hazard category and performance grade determination described below.

Design Reviews are conducted by the FDF Technical Review Board (TRB) of all projects having a performance grade (PG) of PG3 or more restrictive (i.e., PG2 or PG1). Any change affecting the project safety or performance grade subsequent to this review must be approved by the TRB.

The TRB also conducts reviews of projects having a less restrictive performance grade but only to confirm that the proposed assigned performance grade is appropriate and to delegate review responsibility to the FDF Project Manager.

## J.3.1.3 Performance Grades (PG)

Determination of the performance grade for the Silo 3 Project will be based on the design and operation submitted by the Contractor and the hazard level which it presents.

PGs will be determined using engineering procedure ED-12-4015 (Attachment J.4.82).

# J.3.1.4 Safety Basis Documentation

Section J.3.2, Safety Basis Documentation, provides a description of the required documentation the Contractor must produce to support the hazard category determination for each segment of the operation.

This hazard category determination, and the supporting design documentation produced by the Contractor, shall support the performance grade.

References and applicable site procedures have been identified in Section J.3.2 to permit the Contractor to make a preliminary determination of the hazard category as required by the RFP.

## J.3.1.5 FEMP Safety Requirements

Section J.3.3, FEMP Safety Requirements, presents the General Site Requirements, Requirements for the Contractor's Safety and Health Program, and General Training Requirements. These requirements apply to the Contractor and subcontractors.

The Contractor agrees to abide by the FEMP Safety Performance Requirements (SPR) Manual, RM-0021(Attachment J.4.57) which specifies the Occupational Safety and Health Program (including Fire Protection and Industrial Hygiene) that applies to all activities at the FEMP. The Contractor shall adhere to the H&S requirements stated in this RFP. These requirements have been derived from RM-0021 and apply to both the Contractor and subcontractors.

## J.3.1.6 Silo 3 Project Radiological Safety Requirements

All work on the Silo 3 Project will be performed in accordance with 10 CFR Part 835, Occupational Radiation Protection, state and local regulations and all applicable DOE Orders.

10 CFR Part 835 requires a documented Radiation Protection Program (RPP) to be submitted and approved by DOE.

The Contractor shall abide by the FDF documented and approved RPP. The Radiological Control Requirements Manual, RM-0020 (Attachment J.4.56) and Radiological Control procedures supports the implementation of the FDF RPP. The Contractor shall adhere to the radiological safety requirements stated in the RFP (Section J.3.4). These requirements are derived from RM-0020 and apply to the Contractor and subcontractors.

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